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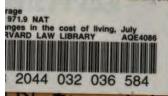
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National Industrial Conference Board

Changes in the Cost of Living July, 1914 - July, 1919

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Changes in the Cost of Living

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July, 1914 — July, 1919

Research Report Number 19
September, 1919

National Industrial Conference Board



National Industrial Conference Board

15 BEACON STREET, BOSTON, MASS.

THE National Industrial Conference Board is a co-operative body composed of representatives of national and state industrial associations, and closely allied engineering societies of a national character, and is organized to provide a clearing house of information, a forum for constructive discussion, and machinery for co-operative action on matters that vitally affect the industrial development of the nation.

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CHANGES IN THE COST OF 4* LIVING

July, 1914—July, 1919

RESEARCH REPORT NUMBER 19
SEPTEMBER, 1919

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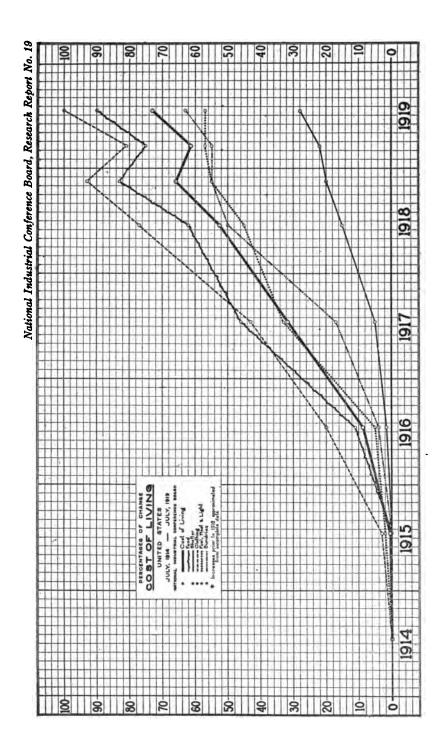
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Foreword

THE present report on changes in the cost of living is the fourth issued on that subject by the National Industrial Conference Board. It brings information down to July, 1919, comparing conditions then with those at the outbreak of the war in 1914.

The figures presented in these reports are general averages, broadly representative of the country as a whole, but not necessarily applicable to individual communities unless allowances are made for possible local deviations from the average changes in the cost of the separate items.



Changes in the Cost of Living

July, 1914—July, 1919

INTRODUCTION

In this report on changes in the cost of living since 1914, figures are given showing increases within the five-year period from July, 1914, to July, 1919, inclusive. In the Board's first study it was brought out that from the beginning of the war in July, 1914, to June, 1918, the average cost of living for American wage-earners had advanced 50% to 55%; up to November, 1918, this increase was found to have been 65% to 70%.2 In March, 1919, prices had dropped and were 60% to 65% above the pre-war level.³ In July, 1919, comparable price changes indicated an advance of 70% to 75% over average costs in the summer of 1914. This represents an increase of 7% since March, 1919, of 4% since November, 1918, and of 14% since June, 1918. The slight decline in prices which was observable in the period from November, 1918, to March, 1919, appears to have been a temporary reaction to peace conditions rather than an indication of the general trend of the cost of living. Neither can the upward tendency apparent since March, 1919, be accepted as necessarily indicative of changes in the cost of living for even the immediate future, although the opinion was general among clothing and fuel dealers, real estate brokers and others, that prices would continue to rise for some time to come.

In July, 1919, information was furnished by the same agencies which reported to the Board in previous investigations. For shelter, clothing, fuel and several sundries, a representative number of replies were received to questionnaires sent by the Board to cities in all sections of the

¹ National Industrial Conference Board. Research Report No. 9, Wartime Changes in the Cost of Living. August, 1918.

² National Industrial Conference Board. Research Report No. 14, Wartime Changes in the Cost of Living, July, 1914—November, 1918. February, 1919.

² National Industrial Conference Board. Research Report No. 17, Wastime Changes in the Cost of Living, July, 1914—March, 1919. May, 1919.

country. The United States Bureau of Labor Statistics' index numbers of retail prices of food were taken as the basis of the estimate regarding the cost of that item. As in previous reports, estimates as to changes in the cost of the separate items entering into the family budget were weighted and combined to obtain the increase in the cost of living as a whole.

Prices prevailing in 1914 were accepted as the base or starting point and changes since that time have, so far as possible, been calculated with reference to the maintenance of the same standard of quality and quantity.

It should always be borne in mind that the figures given are general averages based on a large amount of data collected from all over the United States, and that, since changes in the cost of the separate items differ somewhat from place to place, and since families distribute their incomes in various ways, it may be necessary at times to correct these general averages to make them applicable to particular conditions. With the data given, however, these adjustments may readily be made.

FOOD

Retail prices of food reached their highest point in July. 1919, when they were 90% above the average for the year 1913, which fairly represents the pre-war level, and three points higher than the highest previous figure, 187 in December, 1918.¹ The average increases given in the Board's earlier reports were 62% to June, 1918,² 83% to November, 1918,³ and 75% to March, 1919.⁴ The advance of 15 points from March to July, 1919, was approximately 9%. The index numbers from which these conclusions were reached are those compiled by the United States Bureau of Labor Statistics from retail price quotations secured from more than 2,000 dealers in representative cities. The complete series from January, 1913, to July, 1919, is given in Table 1.5

TABLE I: RELATIVE RETAIL PRICES OF FOOD IN THE UNITED STATES, JANUARY 15, 1913, TO JULY 15, 1919, INCLUSIVE Average price for the year 1913 = 100(United States Bureau of Labor Statistics)

Month	1913	1914	1915	1916	1917	1918	1919
Average for the year	100	102	101	114	146	108	
January	98	104	103	107	128	160	185
February	97	101	101	106	133	161	172
March	97	99	98	107	133	154	175
April	98	97	99	109	145	154	182
May	97	98	100	109	151	158	185
June	98	99	100	112	152	162	184
July	100	102	100	111	146	167	190
August	101	107	100	113	149	171	[
September	102	107	101	118	153	178	
October	104	105	103	121	167	181	
November	105	105	104	126	155	183	
December	104	105	105	126	157	187	

¹In the advance summary of the report on changes in the cost of living between July, 1914, and July, 1919, the increase in food prices was placed at 85% on the basis of the increase to June 15, 1919. Figures for July 15 indicate a rise of 3% within the month, making a total increase to July 15, 1919, of 90%.

Research Report No. 14, pp. 3-5.

Research Report No. 17, pp. 3-5.

Research Report No. 17, pp. 3-4.

Monthly Labor Review, August, 1919, pp. 99-91. The July index number was furnished by the United States Bureau of Labor Statistics in advance of publication in the Labor Review.

From this table it appears that prior to 1916, when war conditions first appreciably affected retail food prices, there was normally a spring decline beginning in February, and that an increase occurred in the latter half of the year, usually beginning in July. The increase of 10.5% between February and July, 1919, however, was the largest occurring in any year between these months and was approximated in only one other period, between February and July, 1917, when the increase was 9.8%. It should be noted, however, that the fall in prices in February and March, 1919, which may possibly have reflected a reaction following the signing of the armistice, was somewhat greater than the usual spring decrease.

Some of the articles of food showing the most significant price changes between July, 1918, and July, 1919, were onions, the price of which increased 85%; prunes, 59%; coffee, 53%; lard, 29%; cheese, 28%; potatoes, 23%; pork chops, 22%; butter, 19%; sugar, 18%; ham, 16%; eggs, 15%; milk, 14%; rice, 13%; and flour, 12%. The prices of navy beans decreased 30%; plate beef, 9%; chuck roast, 5%; and corn meal, 3%. Compared with July, 1913, the average prices of the following articles in July, 1919, were 100% or more higher: ham, sugar, bacon, pork chops, corn meal, flour, potatoes and lard.

Increases in food prices, shown by the difference between the average for the year 1913 and June, 1919, in 39 representative American cities, as ascertained by the United States Bureau of Labor Statistics, are given in Table 2.1

This table shows that, while the average increase in food prices for the country as a whole was 84% within the period, the deviation from this average in these 39 cities was for the most part small, tending to indicate that changes had generally been fairly uniform the country over. The increase of 90% to July, 1919, is, therefore, entirely representative of the increase which had occurred within the five years from July, 1914, to July, 1919.

It is impossible to foresee the course of food prices in the immediate future. As already noted, since 1913 there has been an annual increase throughout the last five or six months of the year. On the other hand, many forces were in operation in July, 1919, to check a further rise.

¹ Monthly Labor Review, August, 1919, p. 109.

TABLE 2: PERCENTAGES OF INCREASE IN THE COST OF FOOD IN 39 PRINCIPAL CITIES OF THE UNITED STATES, BASED ON AVERAGE RETAIL PRICES FOR THE YEAR 1913, AND JUNE 15, 1919

(United States Bureau of Labor Statistics)

Locality	Percentage of increase	Locality	Percentage of increase
United States	84	Manchester, N.H	80
Atlanta, Ga	86	Memphis, Tenn	96
Baltimore, Md	98	Milwaukee, Wis	86
Birmingham, Ala	95	Minneapolis, Minn	86
Boston, Mass	76	Newark, N. J	76
Buffalo, N. Y	89	New Haven, Conn	79
Charleston, S. C	98	New Orleans, La	89
Chicago, Ill	80	New York, N. Y	83
Cincinnati, Ohio	86	Omaha, Neb	88
Cleveland, Ohio	84	Philadelphia, Pa	84
Dallas, Tex	84	Pittsburgh, Pa	83
Denver, Col	84	Portland, Óre	69
Detroit, Mich	92	Providence, R. I	83
Fall River, Mass	79	Richmond, Va	97
Indianapolis, Ind	7 8	St. Louis, Mo	88
Jacksonville, Fla	81	Salt Lake City, Utah .	72
Kansas City, Mo	84	San Francisco, Cal	6 9
Little Rock, Ark	82	Scranton, Pa	86
Los Angeles, Cal	6 4	Seattle, Wash	76
Louisville, Ky	91	Washington, D. C	95
]	

Although the average cost of food in July, 1919, was higher than it had been at any time since the beginning of the war, the increase since June was due for the most part, according to the Bureau of Labor Statistics, to the fact that in the majority of cities from which returns were secured, new potatoes, the price of which was high, had just come on the market.

II

SHELTER

In the three earlier reports by the Board, showing changes in the cost of living from July, 1914, to June, 1918, to November, 1918, and to March, 1919, the estimated increases in rents were placed at 15%, 20% and 22%, From March, 1919, rent increases conrespectively.1 tinued to become more general, until by July, 1919, they embraced nearly all cities and in some slight degree, at least, affected nearly all classes of property and nearly all By July, 1919, also, the tendency to classes of tenants. uniformity had become more evident. The largest advances in rents since March usually were in those localities where previous increases had been smallest; in those cities where excessive increases had already been made, few further advances were reported. The Board estimates the total increase in rents from July, 1914, to July, 1919, to have been 28%, a rise of 5% since March, 1919.

Three hundred and seventeen schedules giving changes in rents from July, 1914, November, 1918, and March, 1919, to July, 1919, were received from real estate boards, chambers of commerce, charitable and civic associations, and real estate brokers in 155 cities. The latter included 122 of the 129 cities in the United States having a population of 50,000 or over in 1916, and 33 smaller places. Conditions in these smaller communities, although of no great importance as affecting the average change in rents in the United States, afford, nevertheless, an indication of the course of rents in other communities of similar size. The information contained in the schedules was supplemented to some extent by other sources of information, and, in addition, the data tabulated in the three previous reports of the Board were compared and checked with the current material.

Changes in the cost of shelter are difficult to estimate, since they are to an appreciable degree the result of local

¹ Research Report No. 9, pp. 22-44; Research Report No. 14, pp. 6-10; Research Report No. 17, pp. 5-9.

conditions. Thus, while general tendencies throughout the country may be noted during a period of years as the cost of building and upkeep rises or falls, any average, especially during a time of rapidly changing prices, must be an arbitrary figure between widely varying high and low points. Percentages of increase in rents, in fact, differ not only as between separate cities, but as between districts and classes of houses in the same city. The diverging points of view of the authorities furnishing information add further difficulties in reaching an accurate figure. With a large number of schedules, however, disparities tend to balance one another, and an estimate based on returns for the country as a whole is approximately correct.

In Table 3 are summarized the estimates which have been reached by the Board on the basis of the information received as to changes in rents for moderate priced and low priced dwellings in the separate cities. The cities are arranged according to the total increase in rents within the period from July, 1914, to July, 1919. These groups, as well as the estimated changes in rents between March, 1919, and July, 1919, mark the limits within which falls the average change and not the range in the separate cities.

From this table it will be seen that the largest single group of cities is the one in which rent increases for the entire five-year period fell between 21% and 30%. In addition, there were 31 cities where the increases ranged from 11% to 20%, and 22 where the increase was 10% or less. In seven others there was no increase during the five-year period. Of a total of 155 cities, 105 reported increases of 30% or less. In the 50 remaining cities where the increase for the five-year period was over 30%, in 28 it fell between 31% and 40%; in 11, between 41% and 50%. In only 11 did the increase for the five-year period exceed 50%. A broad average from these figures, taking population distribution into account, would fall somewhat below 30%.

TABLE 3: ESTIMATED AVERAGE CHANGES IN RENTS PAID BY WAGE-EARNERS IN SPECIFIED CITIES, BETWEEN JULY, 1914, AND JULY, 1919, AND BETWEEN MARCH, 1919, AND JULY, 1919, BY PERCENTAGE GROUPS WITHIN WHICH RENT INCREASES FALL

(National Industrial Conference Board)

Locality Of reports Number of increase March, 19 July, 191	Locality	Number of reports	Percentage of increase, March, 1919– July, 1919
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Eleven cities where rents increased more than 50% in the five-year period July, 1914—July, 1919

Akron, Ohio Bayonne, N. J. Canton, Ohio Chester, Pa. Flint, Mich. Jacksonville, Fla.	1	21%-30%	Oklahoma City,Okla. Portland, Ore. Pueblo, Col. Saginaw, Mich. Waterbury, Conn.	3 1	10% or less 11%-20% 10% or less 11%-20% 10% or less
---	---	---------	---	--------	---

Eleven cities where rents increased 41%-50% in the five-year period July, 1914—July, 1919

Appleton, Wis. Atlantic City, N.J. Berkeley, Cal. Binghamton,N.Y. Cleveland, Ohio Danville, Ill.	1 1 3 1 7	No change 11%-20% 10% or less 11%-20% do. 21%-30%	Denver, Col. Fort Worth, Tex. Johnstown, Pa. Kenosha, Wis. St. Joseph, Mo.		11%-20% No change 10% or less 11%-20% 10% or less
--	-----------------------	--	--	--	---

Twenty-eight cities where rents increased $31\%-40\%^a$ in the five-year period July, 1914—July, 1919

	1				1
Albany, N. Y.	2	11%-20%	Oakland, Cal.	4	11%-20%
Buffalo, N. Y.	2 5	10% or less	Omaha, Neb.	1	No change
Camden, N. J.	1	No change	Paterson, N. J.	1	do.
Charleston, S. C.	1	do.	Port Huron, Mich.	1	10% or less
Columbia, S. C.	1	do.	Racine, Mich.	1	No change
Des Moines, Iowa	1	10% or less	Reading, Pa.	1	10% or less
Detroit, Mich.	3	do.	Seattle, Wash.	2	do.
Duluth, Minn.	3	do.	Sioux Ćity, Iowa	2 2	do.
Elizabeth, N. J.	1	No report	South Bend, Ind.	1	11%-20%
Erie, Pa.	1	No change	Spokane, Wash.	2	do.
Hoboken, N. J.	$\begin{array}{c c} 2 \\ 2 \end{array}$	10% or less	Syracuse, N. Y.	4	10% or less
Lincoln, Neb.		do.	Tacoma, Wash.	4 3	do.
Lowell, Mass.	4	do.	Toledo, Ohio	1	11%-20%
Newark, N. J.	1	do.	Worcester, Mass.	4	10% or less
. •	1		1		· -

cThe percentages given indicate the group within which falls the average change as estimated on the basis of all replies received, not the range for individual cities.

ESTIMATED AVERAGE CHANGES IN RENTS PAID BY WAGE-EARNERS IN SPECIFIED CITIES, BETWEEN JULY, 1914, AND JULY, 1919, AND BETWEEN MARCH, 1919, AND JULY, 1919, BY PERCENTAGE GROUPS WITHIN WHICH RENT INCREASES FALL -continued

(National Industrial Conference Board)

Percentage

No change

do.

10% or less

No change

10% or less

do.

do.

1 2

 $\frac{2}{2}$

1

3

1

Elkhart, Ind.

Gary, Ind.

Fort Wayne, Ind.

Hartford, Conn.

Jersey City, N. J. Kansas City, Kan. Kansas City, Mo.

Locality	of reports	of increase, March, 1919- July, 1919 a	Locality	of reports	of increase, March, 1919– July, 1919 a
Forty-five citie	s where		ed 21%–30% ^a in the fiv —July, 1919	/e-year [period
Allentown, Pa. Ann Arbor, Mich.	2	No change 10% or less	Knoxville, Tenn. Lancaster, Pa.	$\begin{vmatrix} 1 \\ 2 \end{vmatrix}$	10% or less No change
Atlanta, Ga.	1 2	do.	Milwaukee, Wis.	3	10% or less
Augusta, Ga.	1 3	do.	New Bedford, Mass.	1	do.
Baltimore, Md.	3	do.	New Britain, Conn.	1	do.
Battle Creek, Mich.	1	do.	New York, N. Y.	9	do.
Bay City, Mich.	1	No change	Niagara Falls, N.Y.	1	do.
Bellingham, Wash.	1	10% or less	Norfolk, Va.	1	No change
Birmingham, Ala.	1	No change	Passaic, N. J.	1	10% or less
Bridgeport, Conn.	1	do.	Pawtucket, R. I.	1	do.
Chattanooga, Tenn.	3 4 3	10% or less	Pittsburgh, Pa.	7	do.
Chicago, Ill.	4	do.	Richmond, Ind.	1	21%-30%
Columbus, Ohio	3	do.	Rockford, Ill.	2	10% or less
Davenport, Iowa	1	do.	San Antonio, Tex.	3	No change
Dayton, Ohio	2	No change	Scranton, Pa.	1 1	do.
East St. Louis, Ill.	1	11%-20%	Springfield, Mass.	3	10% or less

Thirty-one cities where rents increased 11%-20% in the five-year period July, 1914-July, 1919

Springfield, Mass. Terre Haute, Ind.

Washington, D.C. Waukesha, Wis. Wichita, Kan.

Trenton, N. J. Utica, N. Y.

Altoona, Pa. Cincinnati, Ohio Dallas, Tex. Evansville, Ind. Everett, Wash. Fall River, Mass. Harrisburg, Pa. Holyoke, Mass. Houston, Tex. Jackson, Mich. Lafayette, Ind. Los Angeles, Cal. Louisville, Ky. Memphis, Tenn. Minneapolis, Minn. Mobile, Ala.	1 9 2 3 2 2 2 1 2 1 4 2 3 3 1	10% or less do. do. No change 11%-20% 10% or less do. No change 10% or less No change 10% or less 11%-20% 10% or less do.	New Haven, Conn. Peoria, Ill. Philadelphia, Pa. Portland, Me. Providence, R. I. Richmond, Va. Rochester, N. Y. Sacramento, Cal. Salt Lake City, Utah Schenectady, N.Y. Somerville, Mass. Springfield, Ill. Waterloo, Iowa Wilmington, Del. Yonkers, N. Y.	53314 1211312212	No change 10% or less do. do. do. do. No change 11%-20% 10% or less do. do. do. No change
---	---	---	---	---------------------	---

a The percentages given indicate the group within which falls the average change as estimated on the basis of all replies received, not the range for individual cities.

Percentage

No change

10% or less

do.

do.

No change

do.

1

TABLE 3: ESTIMATED AVERAGE CHANGES IN RENTS PAID BY WAGE-EARNERS IN SPECIFIED CITIES, BETWEEN JULY, 1914, AND JULY, 1919, AND BETWEEN MARCH, 1919, AND JULY, 1919, BY PERCENTAGE GROUPS WITHIN WHICH RENT INCREASES FALL—continued

(National Industrial Conference Board)

Locality Of reports Percentage of increase, March, 1919- July, 1919	T conliter	Number of reports	Percentage of increase, March, 1919– July, 1919
---	------------	-------------------------	--

Twenty-two cities where rents increased 10% or less^a in the five-year period July, 1914—July, 1919

Billings, Mont. Boston, Mass. Brockton, Mass. Cambridge, Mass. Champaign, Ill. Concord, N. H. Elyria, Ohio Geneva, N. Y. Indianapolis, Ind. Lynn, Mass. Malden, Mass.	1 6 4 3 1 1 1 1 3 1	No change 10% or less do. No change 10% or less No change 10% or less No change 10% or less do. do.	Manchester, N. H. New Orleans, La. Phoenix, Ariz. Riverside, Cal. St. Louis, Mo. San Francisco, Cal. Savannah, Ga. Springfield, Ohio Superior, Wis. Tampa, Fla. Wilkes-Barre, Pa.	2 4 2 1 4 1 2 1 1 2 4	10% or less. do. do. No change 10% or less. No change 10% or less. No change 10% or less. do. do.
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Seven cities where rents did not increases in the five-year period July, 1914—July, 1919

Dubuque, Iowa El Paso, Tex. Grand Rapids, Mich. Great Falls, Mont.	1	b10% or less	Na°hville, Tenn. St. Paul, Minn. San Diego, Cal.	1 1 5	No change: do. do.
---	---	--------------	--	-------------	--------------------------

a The percentages given indicate the group within which falls the average change as estimated on the basis of all replies received, not the range for individual cities.

A comparison of changes in rents in different sections of the country indicates that conditions are broadly similar in all areas. Large and small increases were reported from cities of approximately the same population. In cities which had been the center of war industries, the largest rent increases were still observed in July, 1919, regardless of size or location, but there was less tendency for rents in these localities to advance since the signing of the armistice than in those places where advances had previously been smaller. Although it should always be remembered that rent changes vary considerably from place to place, the estimate of 28% for the country as a whole is broadly representative.

b Represents an increase following a previous reduction.

Scarcity of houses continued to be the most important reason assigned for rent increases. Chicago was reported to be short 50,000 houses; in Cleveland, 10,000 to 20,000 families were said to have their household goods in storage; it was stated that in Akron there were 6,000 married men whose homes were too far way to be visited even over Sunday. Smaller cities reported housing needs in proportion. Extensive building operations were in progress in some cities, but these were not expected to relieve the situation immediately. The opinion was frequently expressed by those replying to the Board's questionnaire that rents would continue to advance for some time to come.

III

CLOTHING

The largest advance between July, 1914, and July, 1919, in the cost of any item in the family budget occurred in the case of clothing, which increased 100%. This is a rise of 13% since June, 1918, of 4% since November, 1918, when the previous high peak of clothing prices was reached, and of 10% since March, 1919. The total increase to June, 1918, was 77%; to November, 1918, was 93%; and to March, 1919, was 81%.

This estimate of 100% increase between 1914 and 1919 is based on changes in representative clothing budgets for one year. To obtain the changes in the cost of the various articles entering into these budgets, questionnaries were sent to several hundred retail clothing dealers throughout the United States asking for comparable prices on or about March 1 and July 1, 1919, of 29 types of yard goods and wearing apparel selling for a specified price Replies from 146 dealers in 43 cities were in 1914. Since these came from all sections of the tabulated.4 country, somewhat in proportion to the population, no attempt was made to weight average prices or percentages of increase by the size of the city from which they were While the 29 articles for which prices were received.

- ¹ Research Report No. 9, pp. 45-64.
- Research Report No. 14, pp. 11-18.
- Research Report No. 17, pp. 18-19.
 The cities were grouped geographically in four districts as follows:

Eastern Cities 57 Baltimore, Md 2	Southern Cities 18 Atlanta, Ga 2	Middle Western Cities (continued)
Boston, Mass 12	Birmingham, Ala 1	Louisville, Ky 2
Bridgeport, Conn 5	Charleston, S. C 3	Milwaukee, Wis 3
Buffalo, N. Y 6	Dallas, Tex 2	Minneapolis, Minn 3
Fall River, Mass 2	Little Rock, Ark 2	Omaha, Neb 3
Manchester, N. H 1	Memphis, Tenn 3	St. Louis, Mo 6
Newark, N. J 3	New Orleans, La 4 Richmond, Va 1	St. Paul, Minn 5
New Haven, Conn. 3	Middle Western Cities 44	Far Western Cities . 27
New York, N.Y 7		
Philadelphia, Pa 2	Chicago, Ill 6	Butte, Mont 2
Pittsburgh, Pa 2	Cincinnati, Ohio 3 Cleveland, Ohio 2	Denver, Col 4 Los Angeles, Cal 7
Providence, R. I. 4	Detroit, Mich 2	Portland, Ore 1
Rochester, N. Y. 2	Indianapolis, Ind 6	Salt Lake City, Utah 3
Scranton, Pa 5	Kansas City, Mo 2	
Washington, D. C 1	Lincoln, Neb 1	Seattle, Wash 4

secured did not include every item entering into the family clothing budget, their range was sufficiently wide to indicate the trend of prices of all combined.

The averages of price quotations received from these 146 stores, grouped geographically for convenience in studying the data, are presented in the appendix.1 Average prices in March, 1919, and July, 1919, are given in Table A, and average percentages of change between July, 1914, and March, 1919, and between July, 1914, and July, 1919, in Table B. From these it is seen that geographical location had little or no effect upon the determination of clothing prices. While percentages of increase in the cost of the same item were in many instances found to vary widely, these differences, sometimes noted between two stores in the same city as well as between different cities, were more often apparently attributable to methods of buying and selling and the size of stocks on hand than to the influence of locality. For this reason in a time of rapidly changing prices the average increase based on a large number of quotations from the country as a whole appears to be a safer index of conditions in any one section than an average based on a smaller number of replies from that particular area.

As is evident from Table 4, average prices of the yard goods and wearing apparel for which quotations were secured were higher in July, 1919, than they had been in the preceding March. In many instances, also, the prices were higher than those which had been quoted in November, 1918. Cotton and woolen yard goods, overalls, knit and muslin underwear, and the cheaper grade of work shirts, however, were priced slightly lower in July than they had been in November. significant that with the exception of muslin underwear these were the items for which advances up to November had been greatest. The range of difference in percentage of increase in July had, therefore, become appreciably smaller, covering only 171 points (from 75% for women's blouses to 246% for percale) as against the range of 200 points in November (from 64% for women's blouses to 264% for percale).²

¹ In all tables of average prices, fractions of one-half cent or more have been considered as adding one cent to the price; smaller fractions have been disregarded. For this reason, the percentage figures and the average price figures do not always appear to be in strict accord, since in computing the former, exact average prices were used.

² Research Report No. 14, p. 14.

TABLE 4: AVERAGE RETAIL PRICES OF SELECTED YARD GOODS AND WEARING APPAREL IN JULY, 1919, AND PERCENTAGES OF INCREASE IN PRICE BETWEEN JULY, 1914, AND JULY, 1919, AND BETWEEN MARCH, 1919, AND JULY, 1919

(National Industrial Conference Board)

	Tester 1	7 1	Percentage of increase between		
Article	July 1,	July 1,	July, 1914,	March, 1919	
	1914,	1919,	and	and	
	price	price	July, 1919	July, 1919	
Woolen Yard Goods Serge	\$1.00	\$2.21	121.0%	11.1%	
	1.50	2.80	86.6%	9.8%	
	2.00	4.25	112.4%	12.4%	
Cotton Yard Goods Percale Gingham Longcloth Fruit of the Loom Voile	.07½	.26	246.7%	18.2%	
	.10	.29	190.0%	11.5%	
	.12½	.29	132.0%	16.0%	
	.15	.34	126.7%	25.9%	
	.25	.48	92.0%	1.2%	
Hosiery Men's	.15	.29	93.3%	7.4%	
	.25	.51	104.0%	8.5%	
Knit Underwear Men's union suits Women's vests	.50	1.05	110.0%	5.0%	
	.10	.22	120.0%	4.7%	
Muslin Underwear Women's combinations .	1.00	1.80	80.0%	9.0%	
Suits Men's	15.00	28.17	87.7%	10.0%	
	15.00	28.41	89.4%	16.2%	
Coats Men's	10.00	21.30	113.0%	14.7%	
	10.00	21.59	115.9%	16.0%	
Shirts and Blouses Men's work shirts Men's work shirts Men's negligee shirts Women's blouses	.50	1.26	152.0%	10.5%	
	1.00	1.91	91.0%	5.5%	
	1.00	1.88	88.0%	9.9%	
	1.00	1.75	75.0%	10.0%	
Overalls Shoes Men's	3.50	6.93	98.0%	1.0%	
Women's	3.00 1.25 1.00	6.94 2.47 2.25	97.6% 125.0%	3.4% 11.9%	
Hats Men's felt Women's velvet Women's straw	2.00	3.66	83.0%	6.1%	
	1.50	3.16	110.7%	14.1%	
	1.00	2.11	111.0%	6.0%	

The articles for which the largest price increases were reported were yard goods, knit underwear and the cheaper qualities of machine made clothing, together with women's shoes, hats and gloves.

YARD GOODS

Woolens. Although woolen yard goods were somewhat cheaper in July, 1919, than they had been in November, 1918, when the highest prices were reached, they still showed advances since July, 1914, averaging well over 100%. The price of poplin had gone up the least of the three items for which quotations were secured, 86.6%, while serge which in 1914 cost \$1 a yard showed an increase of 121%. The quotations most frequently noted for this quality of serge in July, 1919, were \$2.50 and \$2. Broadcloth selling for \$2 in 1914 was quoted an almost equal number of times at \$4 and \$4.50 in July, 1919. The average increase was 112.4%.

Cottons. Percale, the cheapest of the cottons for which prices were secured, had increased in price 246.7%. Voile, the most expensive, on the other hand, had advanced only 92%. Gingham selling for 10 cents a yard in 1914 and longcloth for 12½ cents, each brought an average price of 29 cents in July, 1919. The most common quotation for 15-cent Fruit of the Loom was 35 cents in July, 1919, while the average was 34 cents a yard.

Hosiery and Underwear

Hosiery. As in both November, 1918, and March, 1919, the most frequent price for men's hosiery which had retailed for 15 cents in 1914 was 25 cents; this figure was quoted by 65 stores in July, 1919, although 35 stores reported 35 cents as the prevailing price for this grade of goods. The most frequent price for women's hosiery selling for 25 cents in 1914 was 50 cents in July, 1919.

Knit underwear. Although there had been a slight increase from March, 1919, to July, 1919, in the average price of men's union suits costing 50 cents in 1914, the most frequent quotation was \$1, as in March. This showed a close relationship to the average increase of 100% between July, 1914, and March, 1919, and of 110% to July, 1919. Women's vests, of which the retail price in 1914 was 10 cents, averaged 22 cents in July, 1919,

as against 21 cents in March and 23 cents in November, 1918. Twenty-five cents was at all three dates the most frequent quotation.

Muslin underwear. Garments which in 1914 brought \$1 had an almost equal number of quotations at \$1.50 and \$2 in July, 1919. The average price was \$1.80.

OUTER WEAR AND FURNISHINGS

Suits and coats. The average prices of both men's and women's suits selling for \$15 in 1914 showed an increase of nearly 90% to July, 1919. For men's suits there were an equal number of quotations at \$25 and at \$30; for women's suits, on the other hand, \$25 was the most common figure, but there were a number of higher quotations such as \$27.50, \$30, \$35 and \$45. Men's overcoats which retailed for \$10 in 1914 averaged \$21.30 in July, 1919; there were a large number of quotations at \$20 and \$25. Women's coats priced at \$10 in 1914 brought an average of \$21.59 in July, 1919, and were most commonly quoted at \$25; there were, however, 54 quotations below this figure and six above it.

Men's negligee shirts and women's blouses. Men's negligee shirts selling for \$1 in 1914 had advanced to an average price of \$1.88 in July, 1919; and women's blouses which cost \$1 in 1914 averaged \$1.75. The most frequent quotation for the former was \$2 and for the latter, \$1.50. The range in prices in each case was very wide.

Work shirts and overalls. Men's work shirts which retailed for 50 cents in 1914 had increased 152% up to July, 1919. Thirty-four stores reported that they were selling these garments for \$1.25; 31 stores quoted \$1 and 19 stores \$1.50, in July, 1919. The price of work shirts costing \$1 in 1914 had advanced somewhat less than 100%.

The only article of wearing apparel the price of which averaged less in July, 1919, than in June, 1918, was overalls. The average price of \$1.92, in July, 1919, marked a decline of 11% since November, 1918, but overalls still showed the greatest advance in cost of any made-up article of clothing for which price quotations were secured. There were a considerable number of quotations at \$2.25, \$1.75, \$2.50 and \$1.50, for a quality which had retailed at 75 cents in 1914. The most frequent price in July, 1919, was \$2.

Shoes. Women's shoes which cost \$3 in 1914 had advanced 131.2% up to July, 1919. This increase was much more than had occurred in the case of men's shoes priced at \$3.50 in 1914. The average price of the former in July, 1919, was \$6.94; of the latter, \$6.93. The most common quotation for both was \$6 with \$7 also frequently reported.

Gloves. Men's dogskin gloves selling for \$1.25 in 1914 had increased in price 97.6% up to July, 1919; women's cape kid gloves which cost \$1 in 1914 had gone up 125%. Two dollars and fifty cents was the most common quotation for men's gloves in July, 1919; for women's gloves, \$2 and \$2.50 were most frequently reported.

Hats. Prices of \$3.50, \$4 and \$3, in the order named, were the most frequent quotations for men's felt hats which sold for \$2 in 1914. The average price was \$3.66. Women's velvet hats costing \$1.50 in 1914 and women's straw hats costing \$1 had each increased in price 111% up to July, 1919; \$2 was the most frequent quotation for straw hats and \$3 for velvet. The range in prices in July, 1919, was very wide in each case.

CLOTHING BUDGETS

In Table 5 are presented trial clothing budgets for a man and his wife for one year, on the basis of a comparison of 1914 prices with prices for the same articles in November, 1918, March, 1919, and July, 1919, as furnished in reply to the Board's questionnaire. budgets are the same as budgets A and C in the first report on changes in the cost of living. It should be emphasized that these are merely trial budgets presented for the purpose of showing average increases in the cost of clothing, weighted according to their importance. As such, they make no allowance for the varying tastes or needs of individual families, but as a whole they are representative. Typical purchases for a year are included rather than all of the articles of clothing which might be demanded for complete outfits, since certain items will not always be replaced each year. No budgets for children are given, inasmuch as investigation indicated that the cost of their clothing had advanced in about the same proportion as that of adults.

¹ Research Report No. 9, pp. 61, 63.

TABLE 5: TRIAL BUDGETS OF CLOTHING FOR A MAN AND HIS WIFE FOR ONE YEAR, BASED ON COMPARATIVE PRICES IN JULY, 1914, NOVEMBER, 1918, MARCH, 1919, AND JULY, 1919

(National Industrial Conference Board)

Man's Budget					
Article	Cost in July, 1914	Cost in November,1918	Cost in March, 1919	Cost in July, 1919	
Suit	\$15.00	\$26.50	\$26.00	\$28.00	
Overcoat	10.00	20.00	18.50	21.50	
Heavy trousers	3.50	6.50	6.00	7.00	
Two shirts	2.00	3.60	3.25	3.80	
Three work shirts	a1.75	4.40	4.10	4.30	
Three pairs overalls .	2.25	6.45	5.55	5.75	
Shoes and repairs	9.00	15.00	15.50	17.75	
Eight pairs hose	1.20	2.25	2.00	2.30	
Five sets underwear .	<i>b</i> 3.50	8.05	7.00	7.35	
Two nightshirts	1.50	2.70	2.60	2.90	
Collars and ties	1.50	2.75	2.65	2.85	
Hats, caps and gloves	5.00	8.50	8.50	9.25	
Sundries	2.50	5.00	4.50	5.25	
All articles	\$58.70	\$111.70	\$106.15	\$118.00	
Increase, July, 1919, or Increase, July, 1919, or Increase, July, 1919, or	ver Novembe	r, 1918		. 101.0% . 5.6% . 11.2%	

WOM	N'S	BUDGET

Article	Cost in July, 1914	Cost in November,1918	Cost in March, 1919	Cost in July, 1919
Coat or suit	\$15.00	\$26.25	\$24.00	\$28.50
Woolen dress	5.00	10.00	9.50	10.50
Woolen skirt	2.00	3.75	3.25	4.00
Two cotton skirts	2.00	4.00	3.75	4.00
Four waists	4.00	6.60	6.20	7.00
Two house dresses .	2.00	3.75	3.50	3.75
Three aprons	.90	2.85	2.25	2.55
Shoes, overshoes and				1
repairs	6.65	12.50	13.00	15.25
Hosiery	1.50	3.00	2.75	3.00
Corsets	2.00	3.50	3.50	3.75
Six union suits	c3.25	7.25	6.50	7.00
Muslin underwear .	3.20	5.85	5.15	5.75
Three petticoats	1.75	3.50	3.00	3.25
Three nightgowns	2.40	4.50	3.85	4.30
Hats	2.00	3.60	3.60	4.25
Gloves	1.50	3.00	3.00	3.35
Sundries	3.00	5.50	5.00	5.50
All articles	\$58.15	\$109.40	\$101.80	\$115.70

Increase, July, 1919, over July, 1914 Increase, July, 1919, over November, 1918 Increase, July, 1919, over March, 1919

<sup>One at 75 cents, two at 50 cents.
Three at 50 cents, two at \$1.
Three at 75 cents, three at 33\frac{1}{2} cents.</sup>

The average percentages of increase shown for the clothing budgets, 101% for the man's and 99% for the woman's, would be varied somewhat by changing the budget items, but no reasonable budgets would show wide deviations from the Board's estimate of 100% increase in the average cost of clothing between July, 1914, and July, 1919.

None of the retail dealers replying to the Board's questionnaire looked for a decline in prices in the immediate future; the majority predicted further increases in the fall and winter of 1919.

IV

FUEL, HEAT AND LIGHT

The cost to average families of fuel, heat and light combined was the same in July, 1919, as it had been in March: 57% above the level of July, 1914. This figure represents an advance of 1% over the November, 1918, estimate of a 55% increase,² and of 8% over that of June, 1918, when the increase was 45%.3

Ninety-seven replies to questionnaires calling for retail prices of anthracite and bituminous coal in July, 1914, March, 1919, and July, 1919, covering 43 cities, were tabulated. Less detailed reports were obtained regarding changes in the cost of wood, oil, coke and natural gas. Information as to changes in the cost of artificial gas and of electricity was obtained from the National Electric Light Association and the American Gas Association. In the case of gas this information was supplemented by figures collected by the United States Bureau of Labor Statistics.

Fuel4

Changes in the retail prices of coal between March, 1919, and July, 1919, were unimportant. The average increases for chestnut and for stove anthracite since July, 1914, were 54.8% and 56.6%, respectively, or a rise of slightly more than 1% since March, 1919. Bituminous coal showed an average total increase of 55.5% between July, 1914, and July, 1919; this allowed for a decrease of 1% since March, 1919. Price changes for anthracite ranged from an increase of 9% in Boston, Mass., to a decrease of 9% in Charleston, S. C., with the majority of changes insignificant. The cost of bituminous coal advanced 5% in Denver, Col., and declined 10% in St. Paul, Minn. For the most part, however, July, 1919, figures for bituminous coal also were very similar to those quoted in March.

Research Report No. 17, pp. 20-23.

<sup>Research Report No. 14, pp. 19-23.
Research Report No. 9, pp. 65-70.
Fuel does not include artificial gas.</sup>

TABLE 6: PERCENTAGES OF INCREASE BETWEEN JULY, 1914, AND JULY, 1919, AND BETWEEN MARCH, 1919, AND JULY, 1919, IN THE RETAIL PRICE OF COAL IN TON LOTS FOR DOMESTIC USE

(National Industrial Conference Board)

Anthracite				BITUMINOUS		
Chestnut		Stove		COAL		
Percentages of increase between						
July, 1914, and July, 1919	March, 1919, and July, 1919	July, 1914, and July, 1919	March, 1919, and July, 1919	July, 1914, and July, 1919	March, 1919, and July, 1919	
54.8	1.2	56.6	1.2	55.5	a1.0	
59.1 53.0 51.1 41.9	1.7 a5.9 1.4 1.3	62.7 54.3 53.3 32.3	1.7 a3.1 1.5 b	79.1 57.0 56.1 34.1	a2.7 a0.2 a0.8 a0.3	
	July, 1914, and July, 1919 54.8 59.1 53.0 51.1	Chestnut Percer July, 1914, 1919, and July, 1919 54.8 1.2 59.1 1.7 53.0 a5.9 51.1 1.4	Chestnut Str. Percentages of is July, 1914, and July, 1919 54.8 1.2 56.6 59.1 1.7 62.7 53.0 a5.9 54.3 51.1 1.4 53.3	Chestnut Stove Percentages of increase be July, 1919, and July, 1919 and July, 1919 54.8 1.2 56.6 1.2 59.1 1.7 62.7 1.7 53.0 a5.9 54.3 a3.1 51.1 1.4 53.3 1.5	Chestnut Stove Percentages of increase between July, 1914, and July, 1919 1914, and July, 1919 1919 1919	

a Decrease.
b No report.

Prices of wood, oil, coke and natural gas where given were found not to have changed materially between March, 1919, and July, 1919.

LIGHT

There had been practically no change in the cost of electric light for domestic use between March, 1919, and July, 1919, according to the National Electric Light The American Gas Association stated that rates for artificial gas for home use had not changed materially. That changes in the cost of gas since 1914 had been small in comparison with changes in the cost of other items in the family budget is indicated by figures compiled by the United States Bureau of Labor Statistics. giving comparative rates in 33 cities on April 15, 1914, and April 15, 1919. In 14 of these, increases were reported. The smallest of these increases was 4%, in Jacksonville, Fla., and the largest, 45%, in Buffalo, N. Y. Fifteen cities reported no change, and four reported small decreases.1 The trend of rates for both gas and electricity in July, 1919, was, however, upward.

Although there had apparently been no change in the general cost of fuel, heat and light combined between ¹ Monthly Labor Review, June, 1919, pp. 92-93.

March, 1919, and July, 1919, it should be noted that in normal times the price of fuel tends to decline during these months, and that a rise in the autumn is to be expected. Further increases in the cost of coal were generally predicted by dealers, and gas and electric light rates also were expected to continue to rise.

Changes in the cost of fuel, heat and light vary somewhat from place to place, but since this item represents only about 6% of the average family budget, there would have to be a variation of as much as 17% in the increase to cause a change of 1% in the total cost of living. The increase of 57% for the country as a whole between July, 1914, and July, 1919, is undoubtedly sufficient to make ample allowance for most of the differences which have occurred.

SUNDRIES

The estimated average increase between July, 1914, and July, 1919, in the cost of sundries has been placed at 63%. This is an advance of 5% since March, 1919, and November, 1918, and of 9% since June, 1918. These estimates are necessarily the most arbitrary of any regarding changes in the cost of the separate items entering into the family budget, since expenditures for sundries may be combined in a large number of ways.

The most detailed information received was with regard to carfare. Of 145 cities from which reports were made, 19 noted an advance between March and July, 1919. Three of these had installed zone systems and three others had added charges for transfers which brought large increases to certain sections of the city but smaller increases to others. In nine of the cities the increase amounted to 20% or less. In three cities carfares had been reduced. From none of the other 123 cities was a change in carfare reported. Since July, 1914, there had been an increase in 91 of the 145 cities. These increases were largest and apparently most frequent in the cities of the East.

The cost of a number of other items in the sundries group, such as tobacco, candy, soda water, ice cream, toilet preparations and drugs, was increased, partly, at least, by war taxes which went into effect between March and July, 1919. The prices of household furnishings and supplies were said to be still advancing. Reports from a number of dealers placed the increase for many of these articles at 100% or more between July, 1914, and July, 1919. The cost of reading material, medical services and entrance fees to places of amusement was found not to have generally increased between March and July, 1919.

Taking the entire sundries group and allowing for a considerable variety of combinations of individual items, the average increase in cost between July, 1914, and July, 1919, was placed at 63%, which is as representative a figure as could be reached.

Research Report No. 17, p. 24.

<sup>Research Report No. 14, pp. 24-25.
Research Report No. 9, pp. 74-75.</sup>

VI

THE COMPLETE BUDGET

The increase between July, 1914, and July, 1919, in the cost of the different items entering into the family budget, as estimated on the basis of the foregoing evidence, was as follows:

Food .								90%
Shelter								
Clothing								
Fuel, hea								
Sundries								

In order to determine the total advance in the cost of living these percentages must be weighted according to the importance of each item in the budget as a whole. An average allocation of expenditures for the separate budget items, based on the experience of more than 11,000 families studied by the United States Bureau of Labor Statistics and other authoritative agencies, indicates that prior to the war, food required approximately 43% of the total budget; shelter, 18%; clothing, 13%; fuel, heat and light, 6%; and sundries, 20%.

By combining the percentages of increase in the cost of the separate items according to this average allocation of expenditures, an advance of $73\%^3$ in the total budget is obtained, as shown in Table 7.

¹ Research Report No. 9, p. 4.

³A new average allocation of expenditures by 12,000 white families has recently been made available by the United States Bureau of Labor Statistics (Monthly Labor Review, August, 1919, p. 118). This shows a larger proportion of the income devoted to clothing than to shelter. The proportion of the income spent for the different budget items may be expected to vary from time to time according as the cost of any one of them becomes proportionately higher or lower than the others. Thus, if the cost of clothing had risen 100% and shelter only 28%, the proportion spent for clothing would naturally be increased in a ratio greater than that allowed for shelter. In order to preserve the pre-war standard as a basis for comparison, the allocation of expenditures to be used in estimating the increased cost of living since 1914 should be made according to the 1914 budget rather than according to that of 1919.

In the advance summary of the report on changes in the cost of living between July, 1914, and July, 1919, the increase in retail food prices was placed at 85% on the basis of the figures for June 15, 1919. The increase from June 15, to July 15, 1919, was 3%, making a total advance within the five-year period of 20% which has been used in this report. A revision of the estimate regarding changes in the total cost of living, therefore, places the increase in the budget as a whole at 73% instead of the preliminary estimate of 71%.

TABLE 7: PERCENTAGES OF INCREASE BETWEEN JULY, 1914, AND JULY, 1919, IN THE COST OF LIVING IN AVERAGE AMERICAN COMMUNITIES, BY SEPARATE BUDGET ITEMS

(National Industrial Conference Board)

Budget items	Relative	Increase in cost	Increase as
	importance in	between July, 1914,	related to
	family budget	and July, 1919	total budget
All items Food	100.0% 43.1% 17.7% 13.2% 5.6% 20.4%	90% 28% 100% 57% 63%	73.0% 38.8% 5.0% 13.2% 3.2% 12.8%

The increases by separate budget items from June, 1918, November, 1918, and March, 1919, to July, 1919, together with the total percentages of increase between July, 1914, and the specified dates, as brought out in the four surveys which have been made by the Board, are shown in Table 9.1 These facts, together with estimates as to changes since 1914 in the cost of living to 1915, 1916

¹The United States Bureau of Labor Statistics has furnished figures in advance of publication in the *Monthly Labor Review*, showing changes in prices in 13 specified cities between December, 1917, and June, 1919. Prices in December, 1917, were used as the base. In a few instances, owing to incomplete data, these figures are said to be subject to slight revision. The increases are shown in Table 8.

TABLE 8: PERCENTAGES OF INCREASE BETWEEN DECEMBER, 1917, AND JUNE, 1919, IN THE COST OF LIVING IN 13 SPECIFIED CITIES, BY SEPARATE ITEMS

(United States Bureau of Labor Statistics)

City	All items	Food	Cloth- ing	Shelter	Fuel and light	Furni- ture and fur- nishings	Miscel- laneous
Atlanta, Ga. Birmingham, Ala. Cincinnati, Ohio Denver, Col. Indianapolis, Ind. Kansas City, Mo. Memphis, Tenn. Minneapolis, Minn. New Orleans, La. Pittsburgh, Pa. Richmond, Va. St. Louis, Mo. Scranton, Pa.	23.27 19.78 21.05 25.33 21.12 20.57 23.25 18.75 20.73 21.82 20.60 17.85 25.03	17.98 18.26 18.06 20.70 16.36 15.11 22.69 21.44 17.40 16.18 20.63 16.06 18.07	40.69 29.84 48.34 53.22 40.14 44.75 38.33 40.14 48.83 45.27 42.29 39.30 49.56	14.46 12.84 .81 21.80 2.62 6.74 8.19 a\$.01 .05 13.52 3.63 3.78 6.23	17.91 31.85 5.56 8.38 16.66 9.62 23.43 13.41 20.76 9.37 11.40 3.67 25.72	30.07 20.18 30.52 31.28 24.83 37.91 30.65 23.55 29.95 34.11 28.64 32.47 35.59	21.51 16.28 21.80 17.70 26.82 20.94 15.90 17.54 16.73 13.52 15.71 24.90

a Decrease.

and 1917, based on less complete data than the foregoing, are portrayed graphically in the chart facing page 1.1

TABLE 9: INCREASES IN THE COST OF LIVING BETWEEN JULY, 1914, JUNE, 1918, NOVEMBER, 1918, MARCH, 1919, AND JULY, 1919, IN AVERAGE AMERICAN COMMUNITIES, BY SEPARATE BUDGET ITEMS

(National Industrial Conference Board)

	Percentages of increase between											
Budget items	July,	June,	July,	Nov.,	July,	March,	July,					
	1914,	1918,	1914,	1918,	1914,	1919,	1914,					
	and	and	and	and	and	and	and					
	June,	July,	Nov.,	July,	March,	July,	July,					
	1918	1919	1918	1919	1919	1919	1919					
All items Food Shelter Clothing	52.3	13.6	65.9	4.3	61.3	7.3	73.0					
	62	17	83	4	75	9	90					
	15	11	20	7	22	5	28					
	77	13	93	· 4	81	10	100					
Fuel, heat and light Sundries	45 50	8 9	55 5 5	1 5	57 55	<i>a</i> 5	57 63					

4 No change.

Although the distribution of expenditures necessarily varies somewhat among different families, the deviations from the average are not great enough to make the total advance in the cost of living, based on the foregoing estimates for the United States as a whole, more than two or three points higher or lower than the figure given.² The

¹ The percentages of increase above July, 1914, prices at the middle of each year prior to 1918 are estimated to have been as follows:

All items																						1915 .5	1916 8.7	1917 31.7
Food .																						a	11	46
Clothing	•	•	٠	٠	٠	٠	٠	٠	٠	٠	•	٠	٠	٠	٠	٠	٠	٠	٠	٠		8	20	43
Fuel, heat	a	nd	11	igl	ıt																:1	2	5	33
Sundries	•	•	•		•			•		•		•	٠					•		•		a	4	17

⁴ No change.

For discussion of these figures see Research Report No. 17, p. 29.

^aIf, for example, as much as 45% of the total family income be spent for food, 15% each for shelter and clothing, 5% for fuel, heat and light combined, and 20% for sundries, the increase in the budget as a whole, using these percentages of increase for the separate items, would be 75%. Or, if food be taken as representing only 40% of the total outlay, shelter 20%, clothing 15%, fuel, heat and light 6%, and sundries 19%, the total increase on the same basis would be 72%. Other reasonable combinations would produce increases ranging from 71% to 76%.

percentages of increase for separate sections and districts, however, vary more widely, particularly because rent increases have been far from uniform. For this reason, in cities where changes in rents have differed greatly from the 28% given in this report, the estimate of 73% as the increase in the cost of living as a whole should be revised, allowing approximately 1% difference in changes in the total budget to each 5% variation in the shelter item. Leaving out of account abnormal changes, the average increase in the cost of living in the five-year period from July, 1914, to July, 1919, was probably not much less than 70% nor much more than 75%.

In comparing these figures with estimates as to changes in the cost of living made by other agencies it should always be borne in mind that the cost of living as it affects

¹ Studies of the cost of living made by the United States Bureau of Labor Statistics in certain shipbuilding districts showed increases between December, 1914, and June, 1919, as given in Table 10. In a few instances, owing to incomplete data, these figures are said to be subject to slight revision.

TABLE IO: PERCENTAGES OF INCREASE BETWEEN DECEMBER, 1914, AND JUNE, 1919, IN THE COST OF LIVING IN CERTAIN SHIPBUILDING DISTRICTS, BY SEPARATE ITEMS

(United	States	Bureau	of	Labor	Statistics)
---------	--------	--------	----	-------	-------------

District	All items	Food	Cloth- ing	Shelter	Fuel and light	Furni- ture and fur- nishings	Miscel- laneous
Portland, Me. Boston, Mass. New York, N. Y. Philadelphia, Pa. Baltimore, Md. Norfolk, Va. Savannah, Ga. Jacksonville, Fla. Mobile, Ala. Houston, Tex. Los Angeles, Cal. San Francisco and Oakland, Cal. Portland, Ore. Seattle, Wash. Chicago, Ill. Detroit, Mich. Cleveland, Ohio Buffalo, N. Y.	72.78 79.22 76.21 83.99 87.05 79.76 77.48 76.64 80.22 65.07 65.58 69.16 74.47	80.62 67.93 75.32 75.52 91.05 89.83 74.17 83.63 85.65 60.74 67.05 69.30 73.29 86.40 79.65 82.87	103.79 137.88 151.60 135.91 128.87 104.78 146.25 139.76 93.99 134.80 123.26 115.46 110.21 157.07 125.20 125.17 140.74	5.12 13.38 11.30 16.77 46.52 9.70 11.86 1.89 8.71 20.14 51.45 8.04 451.23 21.83	53.38 54.98 45.40 43.27 69.68 35.49 49.22 66.62 37.59 18.60 28.92 31.27 51.80 35.49 47.57 47.88 51.89	126. 41 153. 71 136. 57 117. 78 134. 61 110. 71 136. 50 139. 97 113. 92 144. 47 134. 18 116. 56 122. 09 154. 42 126. 94 129. 31 116. 98 118. 06	75.11 71.24 82.75 83.68 71.22 65.89 75.28 72.31 59.11 60.95 62.30 71.41 61.70 80.26 74.69

a Decrease.

Asstudy made by the American Writing Paper Company of conditions in Holyoke, Mass., showed that to July, 1919, the cost of living in that city had advanced 72.5% above the pre-war level. (Manuscript report.)

The estimates for these 18 districts show an average increase in the total cost of diving very similar to that reached by the National Industrial Conference Board, although changes in the cost of the separate budget items differ somewhat.

individual families is measured by retail prices and not by wholesale prices. Such index numbers as those compiled by Dun, Bradstreet or the New York Times Annalist, which are based on wholesale quotations, are valuable as an indication of the trend of market conditions, but they do not afford a reliable estimate of changes in the cost of living for families in the United States. Nor are changes in food prices alone an index of the total increase in the cost of living, since food represents but one budget item. The only accurate measure of changes in the cost of living is that based on retail prices weighted according to the proportion of the budget spent for each item by average families.

¹The Council of National Defense, in a report on the cost of living problem submitted to members of Congress in August, 1919, gave 150% as the increase in the cost of clothing, 80% for fuel and light, and 131% for house furnishings between 1913 and June, 1919. (United States. Council of National Defense. An Analysis of the High Cost of Living Problem. August, 1919, p. 8). These percentages were based on wholesale quotations and are worthless for the purpose of measuring changes in the cost of living to the average consumer.

APPENDICES

APPENDIX—Table A

AVERAGE RETAIL PRICES OF SELECTED YARD GOODS AND WEARING APPARE AS SECURED IN JULY, 1919

1914-1919 (National Industrial Conference Board)

	Price	U	nited tates	Ea Ci	stern ties	Sou	thern ties	Middl ern	e West- Cities	Far W	ester ties
ARTICLE	July 1,		erage il price	Ave retai	erage l price	Ave retai	rage price	Ave retai	erage l price	Ave retail	rage price
	1914	Mar. 1919	July 1, 1919	Mar. 1- 1919	July 1, 1919	Mar. 1, 1919	July 1, 1919	Mar.1, 1919	July 1, 1919	Mar. 1, 1919	July 191
Woolen Yard Goods Serge Poplin Broadcloth	\$1.00 1.50 2.00	2.5	\$2.21 5 2.80 8 4.25	2.38	2.73	2.23	2.67	2.57		\$2.15 2.90 3.92	3.
Cotton Yard Goods Percale Gingham Longcloth Fruit of the Loom . Voile	.07½ .10 .12½ .15	.2	6 .29 5 .29 7 .34	.24 .24 .27	.28 .29 .32				.30 .28 .34	.22 .27 .27 .30 .43	
Hosiery Men's	.15 .25	.2			.30 .52		. 29 . 46	.27 .47	.30 .50	. 26 . 49	
Knit Underwear Men's union suits Women's vests	.50 .10	1.0				. 94 .19	.99 .21	.98 .20		1.00 .22	1.0
Muslin Underwear Women's combinations	1.00	1.6	1.80	1.62	1.80	1.61	1.72	1.57	1.80	1.70	1.8
Suits Men's Women's	15.00 15.00	25.6 24.4	28.17 6 28.41	26.18 24.09	29.78 30.26	25.71 24.25	27.50 24.92	25.40 24.32	27.27 28.45	24.75 26.09	26.5 28.8
Coats Men's	10.00 10.00	18.5 18.6	6 21 . 30 21 . 59	18.98 17.51	22.71 22.44	16.75 17.50	19.75 20.10	19.40 19.54	21.52 21.95	18.33 18.44	18.7 19.8
Shirts and Blouses Men's work shirts Men's work shirts Men's work shirts Men's negligee shirts Women's blouses	.50 1.00 1.00 1.00	1.1 1.8 1.7 1.5	1 1.91 1 1.88	1.80 1.69	1.92 1.90	1.75 1.66	1.82 1.87	1.83 1.78	1.90 1.89	1.17 1.91 1.75 1.66	1.8
Overalls	.75	1.9	1.92	1.79	1.81	2.00	2.07	2.02	1.98	2.25	2.1
Shoes Men's	3.50 3.00	6.1 6.1								6.00 5.68	6.4 6.3
Gloves Men's dogskin Women's cape	1.25 1.00	$\begin{bmatrix} 2.3 \\ 2.0 \end{bmatrix}$								2.18 2.02	2.2 2.1
Hats Men's felt Women's velvet Women's straw	2.00 1.50 1.00	3.4 2.7 1.9	7 3.16	2.67	3.43	2.99	3.57	2.72	3.00	2.99	

APPENDIX-Table B

CENTAGES OF INCREASE IN THE AVERAGE PRICE OF SELECTED YARD GOODS AND WEARING APPAREL AS SECURED IN JULY, 1919

1914-1919 (National Industrial Conference Board)

		Uni Sta		East Cit			hern ies	Middle ern C			estern	
ARTICLE	Price July 1, 1914	Percenincrease	above	increase	tage of above prices	Percen increase 1914	tage of above prices	Percentincrease		increase	tage of above prices	
	1914	Mar. 1, 1919	July 1. 1919	Mar.1, 1919	July 1, 1919	Mar.1, 1919	July 1, 1919	Mar.1, 1919	July 1, 1919	Mar.1, 1919	July 1 1919	
len Yard Goods rge	\$1.00 1.50 2.00	70.0	121.0 86.6 112.4	58.7	110.0 82.0 109.0	48.7	111.0 78.0 104.0		88.7	115.0 93.3 96.0	100.0	
on Yard Goods create ingham ongcloth ruit of the Loom . oile	.07½ .10 .12½ .15 .25	160.0 100.0 80.0	190.0	140.0 92.0 80.0	273.3 180.0 132.0 113.3 92.0	160.0 92.0 73.3	$190.0 \\ 132.0$	180.0 170.0 100.0 93.3 80.0	200.0 124.0 126.7	$170.0 \\ 116.0$	190.0 140.0 126.7	
iery [en's	.15 .25		93.3 104.0		100.0 108.0				100.0 100.0		80.0 108.0	
t Underwear len's union suits omen's vests	.50 .10			108.0 120.0		88.0 90.0	98.0 110.0	96.0 100.0	106.0 120.0	100.0 120.0	118.0 130.0	
slin Underwear omen's combinations	1.00	65.0	80.0	62.0	80.0	61.0	72.0	57.0	80.0	70.0	83.0	
s Ien's	15.00 15.00	70.7 63.1			98.5 101.7						76.7 92.3	
ts fen's	10.00 10.00		113.0 115.9		127.1 124.4	67.5 75.0	97.5 101.0	94.0 95.4	115.2 119.5			
rts and Blouses Aen's work shirts Aen's work shirts Aen's negligee shirts Vomen's blouses	.50 1.00 1.00 1.00	128.0 81.0 71.0 59.0	91.0 88.0	80.0 69.0	92.0 90.0	75.0 66.0	116.0 82.0 87.0 66.0		90.0 89.0	91.0 75.0	95.0 83.0	
ralls	.75	153.3	156.0	138.7	141.3	166.7	176.0	169.3	164.0	200.0	190.7	
es Aen's Vomen's	3.50 3.00			83.4 113.3		73.7 97.7	106.0 133.3	73.7 93.7	92.0 113.7		84.3 111.0	
ves Aen's dogskin Vomen's cape	1.25 1.00	91.2 101.0	97.6 125.0	77.6 101.0	99.2 128.0	93.6 109.0	101.6 125.0	88.8 110.0	104.0 120.0	74.4 102.0	82.4 119.0	
ts Men's felt Vomen's velvet Vomen's straw	2.00 1.50 1.00	84.7	83.0 110.7 111.0	78.0		99.3		75.5 81.3 108.0	86.5 100.0 106.0	99.3	80.5 94.7 95.0	

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